



**Reference: 100 lbs grapes = 10 gallons must = 6-8 gallons finished wine**

Supplies listed in **bold purple** are for sale at Curds and Wine  
Supplies listed in **bold red** are for rent at Curds and Wine

#### REFERENCES

- **The Winemakers Answer Book by Alison Crowe** – A must-have for all of your questions during harvest and crush
- **Techniques in Home Winemaking by Daniel Pambianchi** – most comprehensive guide to making wine from fresh grapes or concentrate
- **The Way to Make Wine by Sheridan Warrick** – Step by step guide to making wine from fresh grapes

#### EQUIPMENT

- **Refractometer** (if growing grapes only; do NOT use after fermentation initiated to check brix!)
- **Manual Crusher** or **Motorized Crusher/destemmer**
- Primary fermentor: food grade container, must be bigger than the expected volume of must.
  - 50-100 pounds of grapes: **10 or 20 gallon fermenting bucket**, 2 x **7.9 gallon fermenting buckets**, 20 gallon Brute trash can (gray or white is food grade; green and yellow are not)
  - 200 pounds or more of grapes: multiple 32 gallon brute trash cans, or open pick bins
- **Paddle or punch** for red grape fermentation
- **Hydrometer**
- **Floating thermometer**
- **Auto-siphon and tubing**
- **Wine thief**
- **Wine pump**
- **Secondary containers:**
  - At least one **6-gallon carboy** (plastic or glass) and **bung/airlock** per 100 lbs grapes
  - Will probably need **½ or 1 gallon jugs**, might need **3 or 5 gallon carboys/Better Bottles**
  - **Variable capacity stainless steel tanks** and **assorted Hungarian barrels** also available
- **pH strips** (not useful for red wines) or **pH meter**; pH meter available for free testing at Curds and Wine
- Wine press: **basket press** fine for 50-200 lbs grapes; **bladder press** for 100 lbs or more grapes

#### INGREDIENTS

- Dry ice – get at most grocery stores, usually need to call meat or fish department, or Praxair/CO<sub>2</sub> Cool (Miramar road); can also use frozen jugs of water
  - **Easy clean** for cleaning/sanitizing or **Star-San** for sanitizing only
  - **Pectic Enzyme** (1 tsp/10 lbs)
  - **Opti-Red** (15 g/100 lbs)
  - **Lallzyme EX-V** (1 g/100 lbs)
  - **Yeast:** extensive list available at <http://www.curdsandwine.com/Yeasts>; 5 g/100 lbs
  - **Yeast nutrient** (1 tsp/gallon) or **Go-Ferm** (1.25-1.5 g/100 lbs) and **Fermaid K** (5 g/100 lbs)
  - **TA quick tests** (optional; TA analysis run at Curds and Wine for \$15/sample, need at least 10 mls)
  - **Malic acid** and **lactic acid quick tests**
  - **Potassium metabisulfite** (1 pound bag)
  - **Tartaric acid** (typically small additions, 2 oz jar or 1 lb bag won't go bad)
  - **Malolactic bacteria** (2.5 g for 5-20 gallons wine) and **Opti-Malo nutrient** or **ML Red Boost** (5 g/5-6 gallons wine)
  - **Oak dust, chips,** and/or **cubes** (Hungarian, French, and American available in medium, “house”, or heavy toast)
  - **Rice Hulls** (1 pound per 100 pounds of grapes)
- See our website [www.CurdsandWine.com](http://www.CurdsandWine.com) for upcoming winemaking classes

## Red Wine Making checklist for processing 100 pounds of grapes

### Day 1:

- Crush and destem grapes from 100 lbs grapes
- Add 1/4 tsp Potassium metabisulfite (KMS) to must
- Check brix/SG, TA, pH: take out sample, pulse in food processor, strain out solids before testing
- Add pectin enzyme or Lallzyme EX-V (one or the other), and Opti-Red (in addition, optional)
- Let sit overnight with dry ice - 5 pounds per 100 pounds of grapes or frozen jug(s) of water to keep cold, ~50-60° F

### Day 2:

- Activate 5 grams yeast in 50 mls of warm (104° F) filtered water for 15 - 30 minutes with 6.25 g Go-Ferm Protect
- Add ½ cup grape juice and stir; let sit for 10 minutes
- Stir into must

### Day 3:

- Check brix
- Punch down cap 2-3 times

### Day 4:

- Check brix
- Punch down cap 2-3 times

### Day 5:

- Check brix; if brix down 2/3 from start (~10 brix), add Fermaid K
- Punch down cap 2-3 times

→ continue until brix = 0. Keep must covered with plastic wrap and purge airspace on top with CO2 if available until ready to press

### Press Wine

- Can press wine if 5 brix or less, fermentation will finish in carboy after pressing; add rice hulls to improve yield or if volume not enough to fill press
- Press into buckets or Brute food grade cans, cover top with plastic wrap directly on top of wine; let settle overnight

### Day after press:

- Rack into a clean carboy, off of gross lees
- Top carboy close to base of neck, but leave some space for volume expansion and stirring with paddle during MLF
- Start MLF:
  - o Rehydrate malolactic bacteria (MLB) if powdered form; not required for White Labs MLB
  - o Rehydrate Opti-malo plus nutrient separately
  - o Stir in
- \* Stir gently once a week to encourage MLF

→ after ~3 weeks of MLF check lactic and malic acid levels

Read lactic acid first, after that reads positive start reading malic acid

MLF is complete when malic acid is gone

Continue stirring every week until MLF is complete

→ when MLF is complete, check pH, TA, and free SO2 levels and taste; adjust all 3 variables as necessary

- Rack into another clean carboy
- Adjust SO2 to 30-50 ppm
- Add oak if desired

→ Test, taste, and rack wine every 6 - 8 weeks

- Test: free SO2, TA, pH
- Add ¼ tsp KMS per 5-6 gallons wine at each rack to keep free SO2 at least 25 ppm
- If adjusting acids, do bench trials with small samples and taste first before adjusting entire batch
- Rack off of oak after desired oakiness is achieved

→ After 8-12 months, prepare to bottle

- Check if fining/clarifying agents need to be added from clarity, taste
- Adjust final pH, TA
- Adjust SO2 for bottling

